Incremental Credentialing Framework

The Incremental Credentialing Framework provides six approaches to developing and implementing incremental credentials. Based on research, these six approaches represent ways in which higher education and industry are developing different types of credentials.

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www.credentialasyougo.org

CREDENTIAL AS YOU GO

INCREMENTAL CREDENTIALING

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About Credential As You Go

Credential As You Go is catalyzing redesign and integration of credentialing systems across states, higher education, and third-party providers, including employers, to recognize all learners for what they know and can do.

Credential As You Go focuses on building an incremental credentialing system, recognizing that many types of quality credentials (degrees, certificates, industry certifications, licenses, badges, microcredentials) document an individual's learning, and credentials are awarded by many types of providers including community and technical colleges, four-year colleges and universities, third-party organizations, employers, military, and state licensing boards.

For too many learners, the only postsecondary credentials that count for employment are degrees. This focus limits access to further education and employment. Yet, many have acquired valuable skills and knowledge through life and work experience. The U.S. needs a credentialing system that captures and validates all learning.

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Background

Background

The first phase of Credential As You Go (2019-2021) explored the feasibility of a nationally recognized incremental credentialing system, assisted by a Lumina Foundation grant. Key outcomes from this work:

1 A national environmental scan found that some states, systems, and institutions were already moving toward incremental credentialing in different ways. The patterns of credentialing were identified to inform an emerging Incremental Credentialing Framework.

2 Pilot projects at two community colleges and a university within the State University of New York (SUNY) developed and tested the emerging themes, providing proof of concept. The faculty and Credential As You Go team refined the Framework, which features six distinct incremental credential approaches.

3 Feedback from hundreds of top national leaders – obtained through an advisory board, interviews, and a symposium – provided valuable insights and generated enthusiasm for scaling the Credential As You Go initiative.

The Environmental Scan

The environmental scan conducted by the initiative's project team gathered 87 state- and system-level projects across 41 states that were recognizing and credentialing learning in various ways. Although many more credentialing projects were identified at individual institutions, the scan focused on the state and system levels because of the implication for policy change and resource allocations.

State- and system-level projects were identified through: 1) internet searches across all 50 states and territories, and 2) projects known to leaders of the initiative or its 25-member advisory board.

Projects identified in the scan were sorted by several factors, including: purpose, key issues being addressed, credential focus (credit or non-credit at the postsecondary education and/or employment levels), and key outcomes (when available).

Eight key themes were identified for the purpose and issues being addressed:

Equity – Increasing access to, persistence in, progress through, and completion of postsecondary education; and obtaining gainful employment across different race and ethnicity groups, underserved populations, and learners at risk of failure, including adult learners.

Transparency – Increasing information about, the learning represented within, and the outcomes from the credentials to all stakeholders – including learners, other postsecondary institutions, and employers; providing better transparency about what learners know and can do, through strategies such as comprehensive learner records.

Trust – Building partnerships and agreements across institutions and industries, with increased engagement, input, and feedback from stakeholders.

Quality Assurance – Building strategies and processes to ensure the quality of credentials, especially shorter-term and microcredentials.

Access, Persistence, and Completion – Creating strategies to increase learners' access to, persistence in, and completion of high-quality credentials that lead to further education and gainful employment. This includes development of additional shorter-term credentials directly aligned to employment.

Assessment – Developing more direct assessments and assessments designed to recognize and validate all learning – regardless of source – for academic credit and for program or employment requirements.

Workforce development – Increasing attainment of competencies that help learners find or retain employment, often through industry partnerships with postsecondary institutions, skills organizations (e.g., bootcamps), or community-based organizations.

Cost – Implementing different strategies that decrease the cost of education while increasing the number of quality credentials and ensuring a sustainable return on investment.

In addition to certificates and degrees, the types of credentials developed within the various projects included badges, microcredentials, and other shorter-term credentials. Instruction featured condensed methods (e.g., eight-week terms, weekend courses), and online delivery. In some cases, learning external to the institution (e.g., prior leaning, licenses, certifications) was also included in the credentialing efforts. Many of the credentials were aligned to degree programs, creating stackable credentials.

Patterns in the methods for creating credentials and connecting them to employment were identified and themed. From these patterns, a draft Incremental Credentialing Framework was developed, used, and revised during the pilot phase of the grant.

Four main patterns of credentialing were identified initially:

1 Credentials developed to address skilling, upskilling, and re-skilling learners for the workforce.

2 Credentials developed in increments, disaggregating and modularizing degrees to provide progressive blocks of learning that stacked into degrees.

3 Credentials developed as part of a transfer pathways, often between non-credit and credit divisions within an institution or across two institutions.

4 Credentials developed jointly by an institution and an industry partner, often for targeted employment areas.

The environmental scan surfaced numerous concerns:

▬ Lack of consistency

- Inconsistency in approaches increased the potential to confuse stakeholders, including learners. It also can increase mistrust and hinder transferability.
- There was no common language used across the credentials. This also meant there was variation in the way credentials were described and the knowledge and skills they represented. This confused stakeholders and made it difficult to align related credentials.
- Although some credentials had quality assurance and transparency mechanisms in place, these were not consistent.
- Methods of describing credentials and communicating their value were inconsistent.

■ Models built on older models

- The four-tier degree system in postsecondary education hinders development of new types of credentials. Too often, newer credentials were structured around criteria established by legacy systems, without consideration of what credentialing could be today or in the future.

- Postsecondary education business models and infrastructures are built around a four-tier degree system, which often lacks policies better suited to shorter-term credentials – including those related to learner data, financial aid, and resource allocation.

- Recruitment and enrollment strategies tend to target traditional degree-seeking students, with little outreach to learners who would benefit from incremental credentials.

■ Technology and data sharing

- Most student information and degree audit systems are designed for degrees and certificates, not for other types of credentials or for the assessment of prior or experiential learning. Some institutions developed workarounds to store data on learning and smaller credentials.

- Although some institutions piloted different types of comprehensive learner records (e.g., Learn & Employment Record – LER), adoption is slow across sys tems, institutions, and industry.
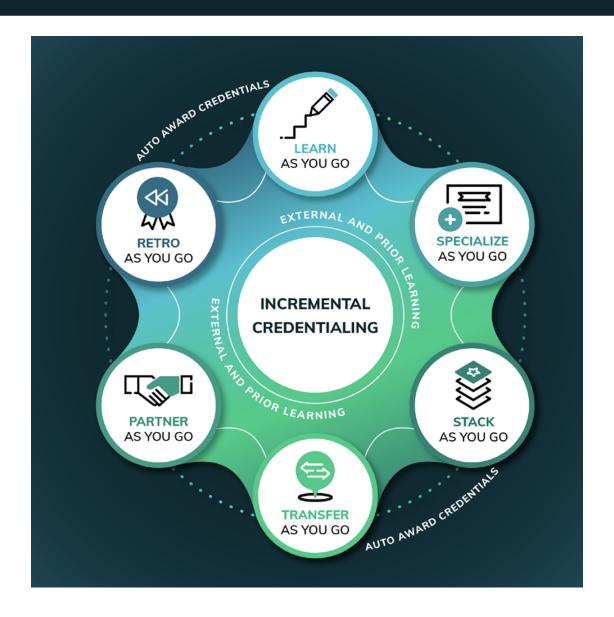
■ Learn-work integration

- Some believed that incremental credentials apply only to work-based programs – a barrier to overcome. Others were developing different types of incremental credentials across academic programs to document different 21st century skills.

- Some academic programs were embedding workplace credentials into academic programs or evaluating workplace credentials for program or admissions credit. This practice is growing, but is still in the early stages of development.

Recommendations

The initiative's Phase One work identified seven recommendations to inform the next stages of the work:

- Develop a learner-centered, nationally recognized credentialing system.

- Recognize, validate, and credential all learning, as knowledge and skills are acquired throughout a learner's lifetime.

- Increase the number and types of incremental credentials available to all learners.

- Connect and integrate postsecondary and workforce competencies through the different types of incremental credentialing.

- Provide clear messaging of what someone knows and can do, including transparent assessments.

- Increase efforts to clearly define quality, which will build trust.

- Decrease costs.

Incremental Credentialing Framework Approaches

Overview

The incremental credentialing process formally recognizes learning that individuals acquire along the way so that they are better positioned for employment and further education. The Incremental Credentialing Framework provides six approaches to developing and implementing incremental credentials. Based on research (see Background), these six approaches represent ways in which higher education and industry are developing different types of credentials. These types of incremental credentials are not mutually exclusive; they often integrate with each other. The six approaches are:

Learn As You Go: credentials can stand on their own or be connected to other credentials, including degrees. They prepare individuals for upskilling, reskilling, and/or developing new skills in the workplace and academic disciplinary areas. Individuals often seek these credentials without intending at that time to pursue a longer-term certificate or degree.

Specialize As You Go: credentials can prepare individuals for specializations in the workplace and in academic disciplines. They may or may not be connected to other credentials. Individuals seek these credentials to add advanced learning to more traditional certificate or degrees, often to improve employment prospects.

Stack As You Go: credentials purposefully stack into other credentials, forming a credentialing pathway. These credentials can be non-credit, microcredentials, certificates, skills badges, licenses, certifications, degrees, and other types. These credentials are purposefully planned to stack and offer transparent choices to learners.

Transfer As You Go: credentials are built to transfer across higher education institutions and/or academic programs. They may be built sequentially, leading to the next-level credential (e.g., non-credit to credit, associate to bachelor's), or across institutions or programs at the same level. Transfer credentials provide potential cost-sharing when they can be offered across institutions or programs.

Partner As You Go: credentials prepare individuals for employment, as well as work-focused credentials are accepted into or embedded within credentialing pathways. These credentials often are developed in conjunction with business/industry partner(s), and they may or may not be connected to a degree or certificate program.

Retro Award As You Go: credentials are awarded for learning already acquired but not yet credentialed. They often target adult learners with some college and no credential and sometimes recognize learning "milestones" that are reached before completing a degree (e.g., general education).

LEARN AS YOU GO

Incremental credentials stand on their own, whether connected or unconnected to a degree. They prepare individuals for upskilling, reskilling, or developing new skills in specific workplace areas.

Strategies

- Skills development targets specific areas of employability.
- Entry-level skills for an academic program and/or employment.
- Skill development builds on existing skills.
- Prior learning is tied to new learning.

Examples

- Training for specific entry-level or more advanced skills (e.g., customer service, management, manufacturing).

- Employer-sponsored upskilling programs for specific skills (e.g., Amazon upskill programs in robotics and IT, GUILD)

- Skills development for employability (e.g., computer skills, writing skills, math skills).

- Learning and development programs developed by employers to skill employees (e.g., Apple, IBM, Google, Marriott International).

- Industry training offered by industry associations (e.g., SHRM, AHLA, OSHA).

- Skills training, MOOCs, or credentials offered by e-learning platforms (e.g., Coursera, Edx, Udemy).

- Skills build on prior learning.

Things to Consider

- Skills Mapping
    - ▶ Which skills are needed for key employment opportunities?
    - ▶ Which skills are needed for work advancements?
    - ▶ Which skills are already being taught in academic programs (non-credit and credit)?
- How do prior skills fit into reskilling and upskilling?

Why Use This Strategy

- Skills development targets specific areas of employability.
- Entry-level skills for an academic program and/or employment.
- Skill development builds on existing skills.
- Prior learning is tied to new learning.

SPECIALIZE AS YOU GO

Incremental credentials are obtained for specializations that add to a degree or broaden an employment pathway (could be credit or non-credit); may not necessarily be planned as part of the pathway.

Strategies

- Specialized skills in a field.

- Minor area for a degree.

- Additional licenses, certifications, certificates, or other credentials recognized in the field.

- Recognition of specialized prior learning.

Examples

- Skills development for workplace advancements (e.g., HR for managers).
- Specialized licenses, certifications, or other recognized specializations (e.g., SHRM certification).
- Additional majors or minors for academic programs (e.g., entrepreneurship for business majors).

Things to Consider

- What specialized areas could your programs support?
- What skill areas do employers need to advance their employees?
- Which formally recognized credentials exist that connect to an academic program?
- What prior learning areas could be built into a specialization?

Why Use This Strategy

- Gives learners additional areas for employability and/or advancement.
- Helps learners connect their prior learning with specializations.
- Allows learners to return and develop additional skills, often more quickly than in a full degree program (although it can connect to a degree program).

STACK AS YOU GO

Incremental credentials add together or stack into larger credentials including degrees, which are strategically planned into credentialing pathways.

Strategies

- Smaller credentials lead to larger credentials (e.g., badges lead to microcredentials lead to certificates lead to degrees).
- Bridge workforce learning and academic learning.

- Transition credentials from one academic degree or industry credential to the next.
- Bridge non-credit and credit learning.
- Build on prior learning and link to next-level credentials.

Examples

- Entry-level microcredential designed to feed into one or more associate degrees (e.g., a microcredential in basic electricity leads to an associate degree in manufacturing).

- Entry-level microcredential designed to feed into associate degree and to bachelor's degree (e.g., a microcredential in medical coding and billing leads to a health information associate degree, which leads to a bachelor's in health information).

- Incremental credential designed to transition an associate degree into a bachelor's degree (e.g., a microcredential in basic management adds onto a technical associate degree and stacks into a business degree).

- A bachelor's degree is reorganized into multiple microcredentials that accumulate into a degree (e.g., a bachelor's degree in business administration is redesigned into three microcredentials plus general education courses).

- A graduate certificate added to a microcredential, along with a few more courses, becomes a master's degree (e.g., a graduate certificate in urban planning, plus a microcredential in sustainable development, plus additional courses stack into a master's in community and economic development).

- Public-private partnerships between community colleges and employers to promote stackable credential pathways (e.g., Virginia community colleges and health care organizations).

- Associate and bachelor's degree programs designed for industry workers and the use of prior learning assessment (e.g., Pace University/NACTEL program)

Things to Consider

- How do skills build along a pathway? What skills depend on previous skills and lead to the next level?

- What academic programs or workplace training can be modularized to give learners more entry and exit points?

- What are the transition points between degrees? Between industry credentials?

- What skills that learners develop in the workplace can be integrated into an academic pathway? What skills gained in academic programs can be integrated into industry credentials?
- How can prior learning be used in an academic or industry pathway?

Why Use This Strategy

- Gives learners obtainable credentials on the way to an academic degree or industry credential.
- Helps learners transition from one credential to the next.
- Encourages learners to return to school or the workplace training to obtain next-level credentials.
- Recognizes learning already acquired.

TRANSFER AS YOU GO

Incremental credentials are designed to transfer across institutions, organizations, or the workplace. They can be a cost-sharing mechanism across the board (students cross-register to another institution for a specialty not offered at the home institution; training relationships prepare people for employment and advancement).

Strategies

- Transfer pathways from one credential to the next across institutions or work environments.
- Transfer pathways from pre-college, undergraduate, through graduate level – within or across institutions.
- Transfer the same-level credential from institution A to institution B for content areas or training not offered by B.
- Share training across organizations or companies.
- Identify expected prior learning as a prerequisite to transfer into an academic or work place program.

Examples

- Associate level to bachelor's level (e.g., a microcredential in business fundamentals goes toward an associate degree and is part of a transfer pathway into a bachelor's degree; or an incremental credential in general education connects an AOS to a bachelor's degree).

- Bachelor's level to master's level (e.g., a certificate in human resources management goes toward a bachelor's degree and is part of a transfer pathway into a master's degree).

- Transfer agreement between two baccalaureate programs for a specialty area (e.g., a microcredential in museum studies is offered at institution A and is built into an art and history degree at institution B through an articulation agreement).

- Partnership agreement to share training across two businesses (e.g., one company provides general training while the other offers specialized training; employees from both companies can take training from either).

- Prior experiences are a requirement to enter an academic program or employment training (e.g., prior documented police experience is required for a graduate-level program in criminal justice).

- Industry-recognized credentials that transfer across organizations and workplaces (CompTia certifications, HR certifications through SHRM, OSHA certifications, manufacturing certifications, nursing certifications).

Things to Consider

- How can academic programs work together across departments, degree levels, or institutions to create transfer pathways incorporating incremental credentials?

- What cost savings can be achieved by sharing resources across departments, degree levels, or institutions?

- How can different companies and/or organizations work together across departments or training programs to create transfer pathways that incorporate incremental credentials?

- How can workforce development and job succession be connected through "transfer-like" agreements?

- How can prior learning or prior credentials be built into transfer pathways?

Why Use This Strategy

- Supports persistence and completion by developing integrated pathways across the levels of credentials.

- Gives learners clear, transparent choices on how to gain credentials needed for work and school.

- Enables cost sharing when pathways extend across departments, degree levels, and/or institutions.

PARTNER AS YOU GO

Incremental credentials prepare for and embed field-expected credentials for work, developed in conjunction with business/industry partner(s), as well as work-related credentials are accepted into credentialing pathways.

Strategies

- Integrate evaluated workplace learning, training, licenses, or certifications for academic recognition (e.g., credit) into an academic pathway.

- Embed the acquisition of workplace credentials within the academic pathway in partnership with industry.

- Integrate academically acquired credentials into workplace training and job advancement.

- Embed prior learning into academic and employment pathways.

Examples

- Evaluate workplace learning, training, licenses or certifications and embed within a credential pathway (e.g., manager training provided by an industry partner is evaluated; results become part of a microcredential, certificate, or degree in management).

- Make preparation for a national certification a formal component of the outcomes for an academic credential (e.g., outcomes in an automotive program prepare learners to earn industry certifications; outcomes in a business pathway are mapped directly to the SHRM certification).

- Gain industry approval for awarding professional certification as part of the academic programming (e.g., Cisco certifications gained within technology programs).

- Prior learning is evaluated to meet requirements for workplace credentials (e.g., to gain certifications from the National Association of Direct Service Providers, a portfolio is developed based on work experiences).

- Pre-apprenticeship and apprenticeship programs developed with industry, educational institutions, and credentialing/certification bodies as an earn-and-learn model.

- Employer-sponsored credential programs that partner with credential providers as a part of strategic assessments of future workforce needs (e.g., Google, BP, Bank of America, Chipotle, Walmart).

Things to Consider

- Which industry partners provide training or require licenses or certifications that align with academic pathways?

- Which industry partners require knowledge and skills that can be supported by existing or new academic pathways?

- Map workplace knowledge and skills to academic learning outcomes within academic pathways.

- Which industry credentials could be satisfied, at least in part, by prior learning or academic programming?

Why Use This Strategy

- Partnerships with industries can provide a pipeline of learners into the institution and a pipeline of workers back to industry.

- Learners needn't repeat learning they've already obtained; this increases persistence and completion while decreasing costs and time to completion.

- Learners are more marketable.

- Many learners have educational benefits that can be used toward a program, which goes further when workplace learning is applied to academic pathways.

RETRO AS YOU GO

Incremental credentials are awarded for learning already acquired but not yet credentialed.

Strategies

- Create credentials of different lengths than traditional degrees.
- Develop field-specific credentials that capture learning acquired in smaller increments.
- Develop credentials that capture common learning across disciplines.
- Create credentials that capture what a learner has already acquired through coursework or other prior learning.

Examples

- Create credentials in high attrition areas (e.g., credential STEM courses completed successfully, credential social science and humanity courses).
- Create a general education credential (e.g., a microcredential in general education).
- Create equivalent credentials (e.g., a two-year credential at a four-year institution equivalent to an associate degree).
- Create smaller credentials designed at specific exit points that still stack into larger credentials.
- Create a self-designed credential that captures learning already acquired (e.g., degree audit against criteria set for credentials).
- Create credentials for specific prior learning areas (e.g., evaluate workplace training and create a credential for that training).
- Form a partnership between employers and credentialing organizations that allows experienced workers to receive credit for existing credentials (e.g., employer-recognized credentialing systems in Singapore).

Things to Consider

- Develop criteria for different types of credentials, including non-credit and non-degree credentials.

- Examine patterns of attrition based on studies completed, and develop academic and workplace credentials to capture learning that is typically acquired at different points along the pathway.

- Design a general education credential that can be used to capture learning already acquired.

- Use degree audits to capture learning already acquired to meet new credentials.

Why Use This Strategy

- Can help learners earn credentials for what they already know and can do.
- Provides pathways toward degree completion and/or workplace advancement.
- Links general education studies with many different fields and industries.
- Formally recognizes prior learning.

Acknowledgements

Additional Resources

Please check our website for updated content, strategies, and examples:
www.credentialasyougo.org